

SEQUENCE LISTING

<110> KYOWA HAKKO KOGYO CO., LTD.

<120> ANTIBODY COMPOSITION-PRODUCING CELL

<130> P-38524

<150> JP 2000-308526

<151> 2000-10-06

<160> 73

<170> PatentIn Ver. 2.1

)

<210> 1

<211> 2008

<212> DNA

<213> Cricetus griseus

<400> 1

aacagaaaact tatttcctg tgtggctaac tagaaccaga gtacaatgtt tccaaattctt 60

ttagctccga gaagacagaa gggagttgaa actctgaaaa tgcgggcatg gactggttcc 120

tggcggttggaa ttatgctcat tcttttgcc tgggggacct tattgtttta tataggttgtt 180

catttggttc gagataatga ccaccctgac cattctagca gagaactctc caagattctt 240

)

gcaaagctgg agcgcttaaa acaacaaaat gaagacttga ggagaatggc tgagtctctc 300

cgaataccag aaggccctat tgatcagggg acagctacag gaagagtcgg tgtttttagaa 360

gaacagcttg ttaaggccaa agaacagatt gaaaattaca agaaacaagc taggaatgat 420

ctggaaagg atcatgaaat cttaaggagg aggattgaaa atggagctaa agagctctgg 480

tttttctac aaagtgaatt gaagaaattha aagaaattag aaggaaacga actccaaaga 540

catgcagatg aaattcttt ggatttagga catcatgaaa ggtctatcat gacagatcta 600

tactacctca gtcaaacaga tggagcaggt gagtggcggg aaaaagaagc caaagatctg 660

acagagctgg tccagcggag aataacatat ctgcagaatc ccaaggactg cagcaaagcc 720
agaaaagctgg tatgtaatat caacaaaggc tgtggctatg gatgtcaact ccatcatgtg 780
gtttactgct tcatttgc ttatggcacc cagcgaacac tcatttgga atctcagaat 840
tggcgctatg ctactggagg atgggagact gtgttagac ctgttaatg gacatgcaca 900
gacaggtctg gcctctccac tggacactgg tcaggtgaag tgaaggacaa aaatgttcaa 960
gtggtcgagc tccccattgt agacagcctc catcctcgac ctccttactt acccttggct 1020
gtaccagaag accttgcaga tcgactcctg agagtccatg gtgatcctgc agtgtggtgg 1080
gtatcccagt ttgtcaaata cttgatccgt ccacaacctt ggctggaaag ggaaatagaa 1140
gaaaccacca agaagcttgg cttcaaacat ccagttattt gagtccatgt cagacgcact 1200
gacaaagtgg gaacagaagc agccttccat cccattgagg aatacatggt acacgttcaa 1260
gaacatttc agcttctcgaa acgcagaatg aaagtggata aaaaaagagt gtatctggcc 1320
actgatgacc cttctttgtt aaaggaggca aagacaaagt actccaatta tgaatttattt 1380
agtgataact ctatttcttg gtcagctggc ctacacaacc gatacacaga aaatttactt 1440
cggggcgtga tcctggatat acacttctc tcccaggctg acttccttgc gtgtactttt 1500
tcatcccagg tctgttaggt tgcttatgaa atcatgaaa cactgcattc tgatgcctct 1560
gcaaacttcc attctttaga tgacatctac tattttggag gccaaaatgc ccacaaccag 1620
attgcagttt atcctcacca acctcgaaact aaagaggaaa tcccatggc acctggagat 1680
atcattggtg tggctggaaa ccattggaaat ggttactcta aaggtgtcaa cagaaaacta 1740
ggaaaaacag gcctgtaccc ttcctacaaa gtccgagaga agatagaaac agtcaaatac 1800
cctacatatac ctgaagctga aaaatagaga tggagtgtaa gagattaaca acagaattta 1860
gttcagacca tctcagccaa gcagaagacc cagactaaca tatggttcat tgacagacat 1920
gctccgcacc aagagcaagt gggaaaccctc agatgctgca ctgggtggaaac gccttttgt 1980

gaagggctgc tgtgccctca agcccatg

2008

<210> 2

<211> 1728

<212> DNA

<213> Mus musculus

<400> 2

atgcgggcat ggactggttc ctggcggtgg attatgctca ttcttttgc ctgggggacc 60

ttgttatttt atatagggtgg tcatttggtt cgagataatg accaccctga tcactccagc 120

) agagaactct ccaagattct tgcaaagctt gaacgcttaa aacagaaaaa tgaagacttg 180

aggcgaatgg ctgagtctct ccgaatacca gaaggccccca ttgaccaggg gacagctaca 240

ggaagagtcc gtgttttaga agaacagctt gttaaggcca aagaacagat tgaaaattac 300

aagaaacaag ctagaaatgg tctgggaag gatcatgaaa tcttaagaag gaggattgaa 360

aatggagcta aagagctctg gtttttcta caaagcgaac tgaagaaatt aaagcattta 420

gaaggaaatg aactccaaag acatgcagat gaaattctt tggattnagg acaccatgaa 480

aggtctatca tgacagatct atactacctc agtcaaacag atggagcagg ggattggcgt 540

) gaaaaagagg ccaaagatct gacagagctg gtccagcggga gaataacata tctccagaat 600

cctaaggact gcagcaaagc caggaagctg gtgtgtaaaca tcaataaagg ctgtggctat 660

ggttgtcaac tccatcacgt ggtctactgt ttcatgattt cttatggcac ccagcgaaca 720

ctcatcttgg aatctcagaa ttggcgctat gctactggtg gatggagac tgtgttttaga 780

cctgtaaatg agacatgtac agacagatct ggcctctcca ctggacactg gtcaggtgaa 840

gttaaatgaca aaaacattca agtggtcgag ctccccattt tagacagcct ccatcctcg 900

cctccttact taccactggc tgttccagaa gaccttgcag accgactcct aagagtccat 960

ggtgaccctg cagtgtggtg ggtgtcccag tttgtcaaattt acttgattcg tccacaacct 1020

tggtggaaa agaaataga agaagccacc aagaagctt gcttcaaaca tccagttatt 1080
ggagtccatg tcagacgcac agacaaagtg ggaacagaag cagccttcca ccccatcgag 1140
gagtagatgg tacacgttga agaacattt cagcttctcg cacgcagaat gcaagtggat 1200
aaaaaaagag tatatctggc tactgatgt cctactttgt taaaggaggc aaagacaaag 1260
tactccaatt atgaatttat tagtgataac tctatttc ttgcagctgg actacacaat 1320
cggtacacag aaaattcact tcgggtgtg atcctggata tacacttct ctcacaggct 1380
gactttctag tgtgtacttt ttcatcccag gtctgtcggg ttgcttatga aatcatgcaa 1440
) accctgcatt ctgatgcctc tgcaacttc cattttgg atgacatcta ctatggaa 1500
ggccaaatg cccacaatca gattgctgtt tatcctcaca aacctcgaac tgaagaggaa 1560
attccaatgg aacctggaga tatcatttgtt gtggctggaa accattggaa tggttattct 1620
aaaggtatca acagaaaact tggaaaaca ggcttatatc ctcctacaa agtccgagag 1680
aagatagaaa cagtcaagta tcccacatat cctgaagctg aaaaatag 1728

) <210> 3
<211> 9196
<212> DNA
<213> Cricetulus griseus

<400> 3
tctagaccag gctggtctcg aactcacaga gaaccacctg cctctgccac ctgagtgcgt 60
ggattaaagg tgtgcaccac caccgccccg cgtaaaatca tattttgaa tattgtgata 120
atttacatta taattgttaag taaaaatttt cagcctattt tggttatacat tttgcgtaa 180
attattctt tttgaaagtt ttgttgtcca taatagtcta gggaaacata aagttataat 240
ttttgtctat gtatttgcatt atatatctat ttaatctcct aatgtccagg aaataaata 300
ggtatgtat agcttcaaca tgtggatga tagaattttt cagtgtata taagttgtta 360

cagcaaagtg ttattaattc atatgtccat atttcaattt tttatgaatt attaaattga 420
atccttaagg tgccagaact agaatttat ttaatcagg aagccccaaa tctgttcatt 480
ctttctatat atgtggaaag gtaggcctca ctaactgatt ctgcacctgt tttagaacat 540
ggtccaagaa tggagttatg taagggaaat tacaagtgtg agaaaactcc tagaaaacaa 600
gatgagtctt gtgacccttag tttctttaaa aacacaaaat tcttggaaatg tgttttcatg 660
ttcctcccag gtggatagga gtgagttat ttcaagattat ttattacaac tggctgttgt 720
tacttgttc tatgtcttta tagaaaaaca tattttttt gccacatgca gcttgcctt 780
atgattttat acttgtgtga ctcttaactc tcagagtata aattgtctga tgctatgaat 840
aaagttggct attgtatgag acttcagccc acttcaattha ttggcttcatt tctctcagat 900
cccaccacct ccagagtgg aaacaacttg aaccattaaa cagacttttag tctttatttg 960
aatgatagat ggggatatca gatttatagg cacagggtt tgagaaaggg agaaggtaaa 1020
cagtagagtt taacaacaac aaaaagtata ctgtaaac gtaaaactat ttattaaagt 1080
agtagacaag acattaaata ttccctggga ttagtgctt ttgaatttttgc ttcaaaata 1140
atagtcagtg agtataacccc tccccattc tatatttttag cagaaatcag aataaatgg 1200
gtttctggta cattttttt tagagaattt atttctttg ggttttgtg catttaaagt 1260
caataaaaat taaggttcag taatagaaaa aaaactctga ttttggaaat ccccttcctt 1320
cagctttctt attaatctc ttaatgataa tttaattttgtt ggccatgtgg tcaaagtata 1380
tagccttgta tatgtaaatg tttaaccaa cctgcctta cagtaactat ataattttat 1440
tctataat atgacttttc ttccatagct ttagagttgc ccagtcactt taagttacat 1500
tttcatatat gttctttgtg ggaggagata attttatttc taagagaatc ctaagcatac 1560
tgattgagaa atggcaaaca aaacacataa tttaagctga taaagaacga acatttggag 1620

ttaaaaatac atagccaccc taagggtta actgttgtt gccttc tttt ggaattttta 1680
ttagttcata tagaaaaatg gattttatcg tgacatttcc atatatgtat ataatatatt 1740
tacatcatat ccacctgtaa ttattagtgt ttttaaatat atttgaaaaa ataatggtct 1800
ggtttgcatttcc atttgaacct tttgatgtt ggtgtggttt ccaattggttt gatggttatg 1860
ataaccctttt cttctctaag gttcaagtca gtttgagaat atgtcctcta aaaatgacag 1920
gttgcaggat aagtagtgag atgacagcga gatggagtga tgagaatttg tagaaatgaa 1980
ttcacttata ctgagaactt gtttgctt tagataatga acatattagc ctgaagtaca 2040
) tagccgaatt gattaattat tcaaagatata aatcttttaa tccctataaaa agaggttata 2100
cacaacaattt caagaaagat agaatttagac ttccaggatatt ggagtgaacc atttggttatc 2160
aggttagaacc ctaacgtgtg tgggtgactt aaagtgttta cttttaccc gatactgggt 2220
agctaattgt ctccagcct cctggccaaa gataccatga aagtcaactt acgttgttatt 2280
ctatatctca aacaactcag ggtgtttttt actctttcca cagcatgttag agcccaggaa 2340
gcacaggaca agaaagctgc ctccttgat caccaggaag atcttttgtt aagagtcatc 2400
acagtataacc agagagacta attttgtctg aagcatcatg tggtaaaaca acagaaactt 2460
) atttccctgt gtggcttaact agaaccagag tacaatgtt ccaattttt gagctccgag 2520
aagacagaag ggagttgaaa ctctgaaaat gcgggcatgg actgggttcc ggcgttggat 2580
tatgctcatt cttttgccct gggggaccctt attgtttat ataggtggtc atttggttcg 2640
agataatgac caccctgacc attctagcag agaactctcc aagattcttgc caaagctggaa 2700
gcgcttaaaa caacaaaatg aagacttgag gagaatggct gagtcctcc ggttagttt 2760
aaatactcaa ggatttgatg aaatactgtg cttgacccctt aggtataggg tctcagtctg 2820
ctgttgaaaa atataatttc tacaaaccgt ctttgtaaaa tttaagtat tggtagcagac 2880
tttttaaaag tcagtgatac atctatatacg tcaatataagg tttacatagt tgcaatctt 2940

tttgcatat gaatcagtat atagaagcag tggcatttat atgcttatgt tgcatttaca 3000
attatgttta gacgaacaca aactttatgt gattggatt agtgctcatt aaatttttt 3060
attctatgga ctacaacaga gacataaatt ttgaaaggct tagttactct taaattctta 3120
tgaatgaaaag caaaaattca ttgttaaata gaacagtgc tccggaatgt gggtaattat 3180
tgccatattt ctagtctact aaaaattgtg gcataactgt tcaaagtcat cagttgtttg 3240
gaaagccaaa gtctgattta aatggaaaac ataaacaatg atatctattt ctagataacct 3300
ttaacttgca gttactgagt ttacaagttg tctgacaact ttggattctc ttacttcata 3360
) tctaagaatg atcatgtgta cagtgcctac tgtcacttta aaaaactgca gggctagaca 3420
tgcagatatg aagactttga cattagatgt ggtaattggc actaccagca agtggatttta 3480
agatacagct gaatatattt cttttgagg aacataattc atgaatggaa agtggagcat 3540
tagagaggat gccttctggc tctcccacac cactgttgc atccattgca tttcacactg 3600
cttttagaac tcagatgttt catatggat attgtgttaac tcaccatcag ttttatctt 3660
aaatgtctat ggatgataat gttgtatgtt aacacttttta caaaaacaaaa tgaagccata 3720
) tcctcggtgt gagttgtat ggtggtaatt gtcacaatag gattattcag caaggaacta 3780
agtcaggagac aagaagtggg cgatactttg ttggatttttca tcattttact ggaagttcat 3840
cagggagggat tatgaaagtt gtggctttg aactgaaatt atatgtgatt cattattctt 3900
gatttaggcc ttgctaatacg taactatcat ttattggaa tttgtcatat gtgccaattt 3960
gtcatgggcc agacagcgtg ttttactgaa tttctagata tctttatgag attctagttac 4020
tgttttcagc cattttacag atgaagaatc ttaaaaaatg ttaaataatt tagttgccc 4080
aagattatac gttaacaaat ggtagaacct tcttgaatt ctggcagtat ggctacacag 4140
tccgaactct tatcttccta agctgaaaac agaaaaagca atgacccaga aaattttattt 4200

taaaagtctc aggagagact tcccatcctg agaagatctc tttcccttt tataatttag 4260
gctcctgaat aatcaactgaa tttctccat gttccatcta tagtactgtt atttctgtt 4320
tccttttc ttaccacaaa gtatcttgaa tttgctgtat gaaagaaaaat gtgttattgt 4380
aatgtgaaat tctctgtccc tgcagggtcc cacatccgccc tcaatcccaa ataaacacac 4440
agaggctgta ttaattatga aactgttggt cagttggcta gggcttctta ttggcttagct 4500
ctgtcttaat tattaaacca taactactat tgtaagtatt tccatgtggc cttatcttac 4560
caaggaaagg gtccagggac ctcttactcc tctggcgtgt tggcagtgaa gaggagagag 4620
) cgatttccta tttgtctctg cttattttct gattctgctc agctatgtca cttcctgcct 4680
ggccaatcag ccaatcagtg ttttattcat tagccaataa aagaaacatt tacacagaag 4740
gacttccccc atcatgttat ttgtatgagt tcttcagaaaa atcatagtat ctttaatac 4800
taattttat aaaaaattaa ttgtattgaa aattatgtgt atatgtgtct gtgtgtcgat 4860
ttgtgctcat aagtagcatg gagtgccagaa gagggaatca gatcttttt taagggacaa 4920
agagtttatt cagattacat tttaaggta taatgtatga ttgcaaggatt atcaacatgg 4980
cagaaatgtg aagaagctgg tcacattaca tccagagtca agagtagaga gcaatgaatt 5040
) gatgcatgca ttcctgtgct cagctcactt ttcctggagc tgagctgatt gtaagccatc 5100
tgatgtcttt gctgggaact aactcaaagg caagttcaaa acctgttctt aagtataagc 5160
catctctcca gtcctcata tggtctctta agacactttc tttatattct tgtacataga 5220
aattgaattc ctaacaactg cattcaaatt acaaaaatagt tttaaaagc tgatataata 5280
aatgtaaata caatctagaa cattttata aataagcata ttaactcagt aaaaataaaat 5340
gcatggttat tttccttcat tagggaagta tgtctccccca ggctgttctc tagattctac 5400
tagtaatgct gtttgtacac catccacagg ggttttattt taaagctaag acatgaatga 5460
tggacatgct tgtagcatt tagactttt tccttactat aattgagcta gtattttgt 5520

gctcagtttgc atatctgtta attcagataa atgtaatagt aggtaatttc tttgtgataa 5580
aggcatataa attgaagttg gaaaacaaaaa gcctgaaatg acagtttta agattcagaa 5640
caataattt caaaagcagt tacccaaactt tccaaataca atctgcagtt ttcttgatat 5700
gtgataaattt tagacaaaga aatagcacat tttaaaatag ctatttactc ttgattttt 5760
tttcaaattt aggcttagttc actagttgtg tgtaaggtaa tggctgaaa catcttgac 5820
tcttggttag ggaatccagg atgatttacg tggccaaatccaa aaatcttgc ttcttgccc 5880
tttcttctct atcttaggttag ctagcacaag ttaaagggtgt ggttagtatttgc gaaggctctc 5940
) aggtatatat ttcttatattc tgtatTTTT tcctctgtca tatatttgc ttctgtttta 6000
ttgatttcta ctgttagttt gatacttact ttcttacact ttcttgcca tttatTTTgc 6060
tggtctaaaga tttcttagca agttcatatc actgattttta acagttgctt ctTTTgtaat 6120
atagactgaa tgccccttat ttgaaatgct tggatcaga aactcagatt tgaacttttc 6180
tttttaata tttccatcaa gtttaccagc tgaatgtcct gatccaaagaa tatgaaatct 6240
gaaatgctt gaaatctgaa acttttagag tgataaagct tcccttaaaa ttaatttgc 6300
) ttctatattt tttgacaatg tcaaccTTTC attgttatcc aatgagtgaa catattttca 6360
atTTTTGTT ttgatctgtt atatTTGAT ctgaccatat ttataaaattt ttatTTAATT 6420
tgaatgttgt gctgttactt atctttatta ttatTTGCT ttatTTCTA gccaatgaa 6480
attatattct gtattatTTT agtttgaatt ttactttgtg gcttagtaac tgcTTTGT 6540
tggtaatgc ttaagaaaaa cgtgtggct actgatattt gttctaatct tatatAGCAT 6600
gttggTTTGT aggttagttga ttatgctggc cagattgtct tgagttatg caaatgtaaa 6660
atatTTGAT gcttggTTTGT ttgtctaaaga acaaagtatg ctggctgtct cctatcggtt 6720
ctggTTTTc cattcatctc ttcaagctgt ttgtgtgtt gaatactaac tccgtactat 6780

cttggtttct gtgaattaac ccctttcaa aggtttctt tctttttt tttaagggac 6840
aacaagttt ttcagattac attttaagct gataatgtat gattgcaagg ttatcaacat 6900
ggcagaaatg tgaagaagct aggcacatta catccacatg gagtcaagag cagagagcag 6960
tgaattaatg catgcattcc tgtggtcagc tcactttcc tattcttaga tagtcttaga 7020
tcataaacct gggaaatagt gctaccacaa tggcatatc cacttacttc agttcatgca 7080
atcaaccaag gcacatccac aggaaaaact gatttagaca acctctcatt gagactcttc 7140
ccagatgatt agactgtgtc aagttgacaa ttaaaaactat cacacctgaa gccatcacta 7200
) gtaaatataa tgaaaatgtt gattatcacc ataattcatt tgcattccctt tggttattgtt 7260
gattttgtga agttcctatt caagtccttg ttcccttcctt aaaaacctgt ttttagtta 7320
aataggttt ttagtgttcc tgtctgtaaa tacttttttta aagttagata ttatTTCAA 7380
gtatgttctc ccagtcatttgc gcttgcattt tcattcccttc aatacatata tttttgttat 7440
ttatTTTTT tatttaaatt agaaacaaag ctgcatttac atgtcagtct cagttccctc 7500
tccctccctt cctccccctgc tccccaccta agccccaaatt ccaactccctt tcttctcccc 7560
aggaagggtg aggccctcca tggggaaat cttcaatgtc tgtcatatca ttggagcag 7620
gccttagacc ctccccagtg tgtcttaggct gagagaggtt ccctctatgt ggagagggct 7680
) cccaaagttc atttgcgttac tagggtaaa tactgatcca ctatcagtgg ccccatagat 7740
tgtccggacc tccaaactga ctcccttcctt cagggaggtt ggaacagttc tatgtcggtt 7800
tcccagatcat cagtctgggg tccatgagca accccttgc caggtcagtt gtttctgttag 7860
gtttccccag cccggcttg accccttgc tcatttcattc tccctctctg caactggatt 7920
ccagagttca gctcagtgtt tagctgtggg tgtctgcattc tgcttccatc agctactgga 7980
tgagggtctt aggtggcat ataaggtagt catcagtctc attatcagag aagggtttttt 8040
aaggtagcctt cttgatttatt gcttagattt ttagttgggg tcaaccctgtt aggtctctgg 8100

acagtgcac ag aattctcttt aaacctataa tggccccc tc tgtgggta tccctttct 8160
tgctctcatc cgttccccc ctgactagat ctccctgctc cctcatgtcc tc tc tccccc 8220
tccccttctc cccttcctt tcttctaact cccttccttcc tccaccacg atccccatta 8280
gc ttatgaga tcttgcctt atttagcaa aacccctttg gctataaaat taattaattt 8340
aatatgctt tatcaggttt attttggcta gtatttgtat gtgtttggtt agtgtttta 8400
acctaattt acatgtatcc ttatatttag acacagattt aaatatttga agttttttt 8460
ttttttttt ttaaagattt atttattttt tatgtcttct gcctgcattgc cagaagaggg 8520
) caccagatct cattcaaggt gggtgtgagc caccatgtgg ttgctggaa ttgaactcag 8580
gacctctgga agaacagtca gtgctctaa ccgctgagcc atctctccag cccctgaagt 8640
gtttctttta aagaggatag cagtgcattca ttttccctt tgaccaatga ctcctacctt 8700
actgaattgt tttagccatt tataatgtaat gctgttacca ggtttacatt ttcttttac 8760
ttgctaaatt tcttccctgt ttgtctcatc tcttattttt gtctgttggaa ttatataaggc 8820
tttattttt ctgttttac agtaagttt atcaaattaa aattttta tgaaatgggt 8880
gtgttgacta catgtatgtc tgtgcaccat gtgctgaccc ggtctggcc agaagaagg 8940
) gtcataattct ctgaaactgg tattgtggat gttacgaact gccatagggt gcttaggaatc 9000
aaaccccaac tcctctggaa aagcagccac tgctctgagc cactgagtcc tctcttcaag 9060
caggtgatgc caactttaa tggttaccag tggataagag tgcttgatc tctagcaccc 9120
atgaaaattt atgcattgct atatgggctt gtcacttcag cattgtgtga cagagacagg 9180
aggatcccaa gagctc 9196

<210> 4
<211> 25
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequense: Synthetic DNA

<400> 4

actcatcttg gaatctcaga attgg

25

<210> 5

<211> 24

<212> DNA

<213> Artificial Sequence

)

<220>

<223> Description of Artificial Sequense: Synthetic DNA

<400> 5

cttgaccgtt tctatcttct ctcg

24

<210> 6

<211> 979

<212> DNA

<213> Cricetulus griseus

<400> 6

actcatcttg gaatctcaga attggcgcta tgctactgga ggatgggaga ctgtgtttag 60

)

acctgtaagt gagacatgca cagacaggc tggcctctcc actggacact gtcaggtga 120

agtgaaggac aaaaatgttc aagtggcga gctccccatt gtagacagcc tccatcctcg 180

tcctccttac ttacccttgg ctgtaccaga agaccttgca gatcgactcc tgagagtcca 240

tgggtatccc gcagtgttgtt ggttatccc gtttgcata tacttgatcc gtccacaacc 300

ttggctggaa aggaaatag aagaaaccac caagaagctt ggcttcaaacc atccagttat 360

tggagtcacat gtcagacgca ctgacaaagt gggAACAGAA gcagccttcc atccattga 420

ggaatacatg gtacacgtt aagaacattt tcagcttctc gaacgcagaa tgaaagtggaa 480

taaaaaaaaga gtgtatctgg ccactgatga cccttctttg ttaaaggagg caaagacaaa 540
gtactccaat tatgaattta ttagtgataa ctctatttct tggtcagctg gactacacaa 600
ccgatacaca gaaaattcac ttccggcggt gatcctggat atacacttc tctcccaggc 660
tgacttcctt gtgtgtactt tttcatccca ggtctgttagg gttgctttagt aaatcatgca 720
aacactgcac cctgatgcct ctgcaaactt ccattctta gatgacatct actatTTGG 780
aggccaaaat gcccacaacc agattgcagt ttatcctcac caacctcgaa ctaaagagga 840
aatccccatg gaacctggag atatcattgg tgtggctgga aaccattgga atggttactc 900
) taaaggtgtc aacagaaaaac taggaaaaac aggccctgtac cttcttaca aagtccgaga 960
gaagatagaa acggtaag 979

<210> 7
<211> 979
<212> DNA
<213> Rattus norvegicus

<400> 7
actcatcttgcaga attggcgcta tgctactgggt ggatgggaga ctgtgttttag 60
acctgttaagt gagacatgca cagacagatc tggcctctcc actggacact ggtcaggtga 120
) agtgaatgac aaaaatatttca aagtggtgga gctccccatt gtagacagcc ttcatcctcg 180
gcctccttac ttaccactgg ctgttccaga agaccttgca gatcgactcg taagagtcca 240
tggtgatcct gcagtgtgggt ggggtgtccca gttcgtcaaa tatttggattc gtccacaacc 300
ttggcttagaa aaggaaatag aagaagccac caagaagctt ggcttcaaacc atccagtcatt 360
tggagtcacat gtcagacgca cagacaaagt gggAACAGAG gcagcccttcc atcccatcgaa 420
agagtacatg gtacatgttg aagaacattt tcagcttctc gcacgcagaa tgcaagtggaa 480
taaaaaaaaga gtatatctgg ctaccgatga ccctgctttg ttaaaggagg caaagacaaa 540

gtactccaat tatgaattta ttagtgataa ctctatttct tggtcagctg gactacacaa 600
tcgg tacaca gaaaattcac ttccccgggt gatcctggat atacactttc tctctcaggc 660
tgacttccta gtgtgtactt tttcatccca ggtctgtcgg gttgcttatg aaatcatgca 720
aacccctgcac cctgatgcct ctgcaaactt ccactcttta gatgacatct actatttgg 780
aggccaaaat gcccacaacc agattgccgt ttatcctcac aaacctcgaa ctgatgagga 840
aattccaatg gaacctggag atatcatgg tgtggctgga aaccattggg atggttattc 900
taaagggtgtc aacagaaaac ttggaaaaac aggcttatcccttaca aagtccgaga 960
) gaagatagaa acggtaag 979

<210> 8
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 8
aagtataagc ttacatggat gacgatatcg ctgcgctcgt 40

)<210> 9
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 9
attnaactgc aggaagcatt tgccgtggac gatggagggg 40

<210> 10
<211> 40

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 10
attnaaggta ccgaagcatt tgcgggtgcac gatggagggg 40

<210> 11
<211> 23
<212> DNA
<213> Artificial Sequence
)

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 11
ctccaattat gaatttatta gtg 23

<210> 12
<211> 25
<212> DNA
<213> Artificial Sequence
)

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 12
ggatgtttga agccaaagctt cttgg 25

<210> 13
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 13

gtccatggtg atcctgcagt gtgg

24

<210> 14
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 14
caccaatgat atctccaggt tcc

23

)

<210> 15
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 15
gatatcgctg cgctcggtgt cgac

24

)

<210> 16
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 16
caggaaggaa ggctggaaaa gagc

24

<210> 17
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 17
gatatcgctg cgctcgtcgt cgac

24

<210> 18
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 18
caggaaggaa ggcttggaaaga gaga

24

<210> 19
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 19
atgcgggcat ggactggttc ctgg

24

<210> 20
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 20
ctattttca gcttcaggat atgtggg

27

<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 21
gtctgaagca ttatgtgttg aagc

24

)<210> 22
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequense: Synthetic DNA

<400> 22
gtgagtagcat tcattgtact gtg

23

<210> 23
<211> 575
<212> PRT
<213> Cricetulus griseus

)<400> 23
Met Arg Ala Trp Thr Gly Ser Trp Arg Trp Ile Met Leu Ile Leu Phe
1 5 10 15

Ala Trp Gly Thr Leu Leu Phe Tyr Ile Gly Gly His Leu Val Arg Asp
20 25 30

Asn Asp His Pro Asp His Ser Ser Arg Glu Leu Ser Lys Ile Leu Ala
35 40 45

Lys Leu Glu Arg Leu Lys Gln Gln Asn Glu Asp Leu Arg Arg Met Ala
50 55 60

Glu Ser Leu Arg Ile Pro Glu Gly Pro Ile Asp Gln Gly Thr Ala Thr

| | | | |
|---|----|-----|-----|
| 65 | 70 | 75 | 80 |
| Gly Arg Val Arg Val Leu Glu Glu Gln Leu Val Lys Ala Lys Glu Gln | | | |
| 85 | | 90 | 95 |
| Ile Glu Asn Tyr Lys Lys Gln Ala Arg Asn Asp Leu Gly Lys Asp His | | | |
| 100 | | 105 | 110 |
| Glu Ile Leu Arg Arg Arg Ile Glu Asn Gly Ala Lys Glu Leu Trp Phe | | | |
| 115 | | 120 | 125 |
| Phe Leu Gln Ser Glu Leu Lys Lys Leu Lys Lys Leu Glu Gly Asn Glu | | | |
| 130 | | 135 | 140 |
| Leu Gln Arg His Ala Asp Glu Ile Leu Leu Asp Leu Gly His His Glu | | | |
| 145 | | 150 | 155 |
| Arg Ser Ile Met Thr Asp Leu Tyr Tyr Leu Ser Gln Thr Asp Gly Ala | | | |
| 165 | | 170 | 175 |
| Gly Glu Trp Arg Glu Lys Glu Ala Lys Asp Leu Thr Glu Leu Val Gln | | | |
| 180 | | 185 | 190 |
| Arg Arg Ile Thr Tyr Leu Gln Asn Pro Lys Asp Cys Ser Lys Ala Arg | | | |
| 195 | | 200 | 205 |
| Lys Leu Val Cys Asn Ile Asn Lys Gly Cys Gly Tyr Gly Cys Gln Leu | | | |
| 210 | | 215 | 220 |
| His His Val Val Tyr Cys Phe Met Ile Ala Tyr Gly Thr Gln Arg Thr | | | |
| 225 | | 230 | 235 |
| 240 | | | |
| Leu Ile Leu Glu Ser Gln Asn Trp Arg Tyr Ala Thr Gly Gly Trp Glu | | | |
| 245 | | 250 | 255 |
| Thr Val Phe Arg Pro Val Ser Glu Thr Cys Thr Asp Arg Ser Gly Leu | | | |
| 260 | | 265 | 270 |
| Ser Thr Gly His Trp Ser Gly Glu Val Lys Asp Lys Asn Val Gln Val | | | |
| 275 | | 280 | 285 |
| Val Glu Leu Pro Ile Val Asp Ser Leu His Pro Arg Pro Pro Tyr Leu | | | |
| 290 | | 295 | 300 |

Pro Leu Ala Val Pro Glu Asp Leu Ala Asp Arg Leu Leu Arg Val His
305 310 315 320

Gly Asp Pro Ala Val Trp Trp Val Ser Gln Phe Val Lys Tyr Leu Ile
325 330 335

Arg Pro Gln Pro Trp Leu Glu Arg Glu Ile Glu Glu Thr Thr Lys Lys
340 345 350

Leu Gly Phe Lys His Pro Val Ile Gly Val His Val Arg Arg Thr Asp
355 360 365

Lys Val Gly Thr Glu Ala Ala Phe His Pro Ile Glu Glu Tyr Met Val
370 375 380)

His Val Glu Glu His Phe Gln Leu Leu Glu Arg Arg Met Lys Val Asp
385 390 395 400

Lys Lys Arg Val Tyr Leu Ala Thr Asp Asp Pro Ser Leu Leu Lys Glu
405 410 415

Ala Lys Thr Lys Tyr Ser Asn Tyr Glu Phe Ile Ser Asp Asn Ser Ile
420 425 430

Ser Trp Ser Ala Gly Leu His Asn Arg Tyr Thr Glu Asn Ser Leu Arg
435 440 445

Gly Val Ile Leu Asp Ile His Phe Leu Ser Gln Ala Asp Phe Leu Val
450 455 460)

Cys Thr Phe Ser Ser Gln Val Cys Arg Val Ala Tyr Glu Ile Met Gln
465 470 475 480

Thr Leu His Pro Asp Ala Ser Ala Asn Phe His Ser Leu Asp Asp Ile
485 490 495

Tyr Tyr Phe Gly Gly Gln Asn Ala His Asn Gln Ile Ala Val Tyr Pro
500 505 510

His Gln Pro Arg Thr Lys Glu Glu Ile Pro Met Glu Pro Gly Asp Ile
515 520 525

Ile Gly Val Ala Gly Asn His Trp Asn Gly Tyr Ser Lys Gly Val Asn
530 535 540

Arg Lys Leu Gly Lys Thr Gly Leu Tyr Pro Ser Tyr Lys Val Arg Glu
545 550 555 560

Lys Ile Glu Thr Val Lys Tyr Pro Thr Tyr Pro Glu Ala Glu Lys

565 570 575

<210> 24

<211> 575

<212> PRT

) <213> Mus musculus

<400> 24

Met Arg Ala Trp Thr Gly Ser Trp Arg Trp Ile Met Leu Ile Leu Phe
1 5 10 15

Ala Trp Gly Thr Leu Leu Phe Tyr Ile Gly Gly His Leu Val Arg Asp
20 25 30

Asn Asp His Pro Asp His Ser Ser Arg Glu Leu Ser Lys Ile Leu Ala
35 40 45

Lys Leu Glu Arg Leu Lys Gln Gln Asn Glu Asp Leu Arg Arg Met Ala
50 55 60

) Glu Ser Leu Arg Ile Pro Glu Gly Pro Ile Asp Gln Gly Thr Ala Thr
65 70 75 80

Gly Arg Val Arg Val Leu Glu Glu Gln Leu Val Lys Ala Lys Glu Gln
85 90 95

Ile Glu Asn Tyr Lys Lys Gln Ala Arg Asn Gly Leu Gly Lys Asp His
100 105 110

Glu Ile Leu Arg Arg Arg Ile Glu Asn Gly Ala Lys Glu Leu Trp Phe
115 120 125

Phe Leu Gln Ser Glu Leu Lys Lys Leu Lys His Leu Glu Gly Asn Glu
130 135 140

Leu Gln Arg His Ala Asp Glu Ile Leu Leu Asp Leu Gly His His Glu
145 150 155 160

Arg Ser Ile Met Thr Asp Leu Tyr Tyr Leu Ser Gln Thr Asp Gly Ala
165 170 175

Gly Asp Trp Arg Glu Lys Glu Ala Lys Asp Leu Thr Glu Leu Val Gln
180 185 190

Arg Arg Ile Thr Tyr Leu Gln Asn Pro Lys Asp Cys Ser Lys Ala Arg
195 200 205

Lys Leu Val Cys Asn Ile Asn Lys Gly Cys Gly Tyr Gly Cys Gln Leu
210 215 220)

His His Val Val Tyr Cys Phe Met Ile Ala Tyr Gly Thr Gln Arg Thr
225 230 235 240

Leu Ile Leu Glu Ser Gln Asn Trp Arg Tyr Ala Thr Gly Gly Trp Glu
245 250 255

Thr Val Phe Arg Pro Val Ser Glu Thr Cys Thr Asp Arg Ser Gly Leu
260 265 270

Ser Thr Gly His Trp Ser Gly Glu Val Asn Asp Lys Asn Ile Gln Val
275 280 285)

Val Glu Leu Pro Ile Val Asp Ser Leu His Pro Arg Pro Pro Tyr Leu
290 295 300

Pro Leu Ala Val Pro Glu Asp Leu Ala Asp Arg Leu Leu Arg Val His
305 310 315 320

Gly Asp Pro Ala Val Trp Trp Val Ser Gln Phe Val Lys Tyr Leu Ile
325 330 335

Arg Pro Gln Pro Trp Leu Glu Lys Glu Ile Glu Glu Ala Thr Lys Lys
340 345 350

Leu Gly Phe Lys His Pro Val Ile Gly Val His Val Arg Arg Thr Asp
355 360 365

Lys Val Gly Thr Glu Ala Ala Phe His Pro Ile Glu Glu Tyr Met Val
370 375 380

His Val Glu Glu His Phe Gln Leu Leu Ala Arg Arg Met Gln Val Asp
385 390 395 400

Lys Lys Arg Val Tyr Leu Ala Thr Asp Asp Pro Thr Leu Leu Lys Glu
405 410 415

Ala Lys Thr Lys Tyr Ser Asn Tyr Glu Phe Ile Ser Asp Asn Ser Ile
420 425 430

Ser Trp Ser Ala Gly Leu His Asn Arg Tyr Thr Glu Asn Ser Leu Arg
435 440 445

Gly Val Ile Leu Asp Ile His Phe Leu Ser Gln Ala Asp Phe Leu Val
450 455 460

Cys Thr Phe Ser Ser Gln Val Cys Arg Val Ala Tyr Glu Ile Met Gln
465 470 475 480

Thr Leu His Pro Asp Ala Ser Ala Asn Phe His Ser Leu Asp Asp Ile
485 490 495

Tyr Tyr Phe Gly Gly Gln Asn Ala His Asn Gln Ile Ala Val Tyr Pro
500 505 510

His Lys Pro Arg Thr Glu Glu Glu Ile Pro Met Glu Pro Gly Asp Ile
515 520 525

Ile Gly Val Ala Gly Asn His Trp Asp Gly Tyr Ser Lys Gly Ile Asn
530 535 540

Arg Lys Leu Gly Lys Thr Gly Leu Tyr Pro Ser Tyr Lys Val Arg Glu
545 550 555 560

Lys Ile Glu Thr Val Lys Tyr Pro Thr Tyr Pro Glu Ala Glu Lys
565 570 575

<210> 25

<211> 18

<212> PRT

<213> Homo sapiens

<400> 25

Asp Glu Ser Ile Tyr Ser Asn Tyr Tyr Leu Tyr Glu Ser Ile Pro Lys
1 5 10 15

Pro Cys

<210> 26

<211> 25

<212> DNA

<213> Artificial Sequence

)

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 26

cttgtgtgac tcttaactct cagag

25

<210> 27

<211> 23

<212> DNA

<213> Artificial Sequence

)

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 27

ccctcgagat aacttcgtat agc

23

<210> 28

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 28

ggttaggcctc actaactg

18

<210> 29

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 29

catagaaaaca agtaacaaca gccag

25

)

<210> 30

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 30

gagacttcag cccacttcaa ttattggc

28

)

<210> 31

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 31

gaggccacctt gtgttagcgcc aagtg

25

<210> 32

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 32
aggaagggtgg cgctcatcac gggc

24

<210> 33
<211> 26
<212> DNA
<213> Artificial Sequence

)<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 33
taaggccaca agtcttaatt gcattcc

26

<210> 34
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

)<400> 34
caggggtgtt cccttgagga ggtggaa

27

<210> 35
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 35
cccctcacgc atgaaggctg gag

23

<210> 36
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 36
ggcaggagac caccttgcga gtgcccac

28

)<210> 37
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 37
ggcgctggct taccggaga ggaatggg

28

)<210> 38
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 38
aaaaggcctc agtttgtgaa ctgtatgg

28

<210> 39
<211> 29
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 39

cgcggatcct caagcggtgg ggttggtcc

29

<210> 40

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

)

<400> 40

cccaagcttg ccaccatggc tcacgctccc gctagctgcc cgagc

45

<210> 41

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 41

ccggaattct gccaaagtatg agccatcctg g

31

)

<210> 42

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 42

gccatccaga aggtgg

17

<210> 43

<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 43
gtcttgcag ggaagat

17

)<210> 44
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 44
ggcaggagac caccttgcgaa gtgcccac

28

<210> 45
<211> 28
<212> DNA
<213> Artificial Sequence

)<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 45
gggtgggctg tacttctgg aacaggc

28

<210> 46
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 46
ggcgctggct taccggaga ggaatggg 28

<210> 47
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 47
gaaatgggtg tttgtctcctc caaagatgc 28
)

<210> 48
<211> 1316
<212> DNA
<213> Cricetulus griseus

<400> 48
cccccgcccc ctccacctgg accgagagta gctggagaat tgtgcaccgg aagtagctct 60
tggactggtg gaaccctgcg caggtgcagc aacaatgggt gagccccagg gatccaggag 120
gatcctagtg acagggggct ctggactggt gggcagagct atccagaagg tggtcgcaga 180
tggcgctggc ttacccggag aggaatgggt gtttgtctcc tccaaagatg cagatctgac 240
ggatgcagca caaacccaag ccctgttcca gaaggtacag cccacccatg tcattcatct 300
tgctgcaatg gtaggaggcc ttttccggaa tatcaaatac aacttggatt tctggagggaa 360
gaatgtgcac atcaatgaca acgtcctgca ctcagcttc gaggtgggca ctgcgaagg 420
ggtctcctgc ctgtccacct gtatctccc tgacaagacc acctatccta ttgatgaaac 480
aatgatccac aatggtccac cccacagcag caatttggg tactcgatg ccaagaggat 540
gattgacgtg cagaacaggg cctacttcca gcagcatggc tgcacccatc ctgctgtcat 600
ccctaccaat gtcttggac ctcatgacaa cttaacatt gaagatggcc atgtgctgcc 660

tggcctcatc cataaggtgc atctggccaa gagtaatggt tcagccttga ctgtttgggg 720
tacaggaaaa ccacggaggc agttcatcta ctcactggac ctagcccgac tcttcatctg 780
ggcctgcgg gagtacaatg aagttgagcc catcatcctc tcagtggcg aggaagatga 840
agtctccatt aaggaggcag ctgaggctgt agtggaggcc atggacttct gtggggaagt 900
cactttgat tcaacaaagt cagatggca gtataagaag acagccagca atggcaagct 960
tcgggcctac ttgcctgatt tccgtttcac acccttcaag caggctgtga aggagacctg 1020
tgccctggttc accgacaact atgagcaggc ccggaagtga agcatggac aagcgggtgc 1080
)
tcagctggca atgcccagtc agtaggctgc agtctcatca tttgcttgta aagaactgag 1140
gacagtatcc agcaacctga gccacatgct ggtctctctg ccagggggct tcatgcagcc 1200
atccagtagg gccccatgttt gtccatcctc gggggaaaggc cagaccaaca cttgtttgt 1260
ctgcttctgc cccaacctca gtgcattccat gctggccttg ctgtcccttg tctaga 1316

<210> 49
<211> 23
<212> DNA
<213> Artificial Sequence

)
<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 49
gatcctgctg ggaccaaaaat tgg

23

<210> 50
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 50
cttaacatcc caagggatgc tg

22

<210> 51
<211> 1965
<212> DNA
<213> Cricetulus griseus

<400> 51
acggggggct cccggaagcg gggaccatgg cgctctgcg cgaagcgagc ctgcggaagc 60
tgcggcgctt ttccgagatg agaggcaaac ctgtggcaac tggaaattc tggatgtag 120
)
ttgtaataac agcagctgac gaaaagcagg agcttgctta caagcaacag ttgtcggaga 180
agctgaagag aaaggaattt ccccttgag ttaactacca tggatgtac gatcctcctg 240
gaaccaaaat tggaaatgga ggatcaacac ttgttctct tcagtgcctg gaaaggctct 300
atggagacaa gtggattcc ttcacagtcc tgttaattca ctctggtggc tacagtcaac 360
gacttccaa tgcaagcgct ttagaaaaa tcttcacggc ttaccactt ggtgagccca 420
tttatcagat gttggactta aaactagcca tgtacatgga ttcccctca cgcatgaagc 480
ctggagttt ggtcacctgt gcagatgata ttgaactata cagcattggg gactctgagt 540
)
ccattgcatt tgagcagcct ggctttactg ccctagccca tccatctagt ctggctgtag 600
gcaccacaca tggagtattt gtattggact ctgccggttc ttgcaacat ggtgacctag 660
agtacaggca atgccaccgt ttccctccata agcccgatc tgaaaacatg caccactta 720
atgccgtca tagacttagga agctttggtc aacaggactt gagtgggggt gacaccacct 780
gtcatccatt gcactctgag tatgtctaca cagatagcct attttacatg gatcataaat 840
cagccaaaaa gctacttgat ttctatgaaa gtgttaggccc actgaactgt gaaatagatg 900
cctatggtga ctttctgcag gcactggac ctggagcaac tgcagagttac accaagaaca 960

cctcacacgt cactaaagag gaatcacact tggatggacat gaggcagaaa atattccacc 1020
tcctcaaggg aacaccccctg aatgttggtg tccttaataa ctccaggttt tatcacattg 1080
gaacaacgga ggagtatctg ctacatttca cttccaatgg ttcgttacag gcagagctgg 1140
gcttgcatac catagcttcc agtgtcttc caaatgtgcc tgaagactcc catgagaaac 1200
cctgtgtcat tcacagcattc ctgaattttag gatgtgtgtt ggccctggc tcagtggtag 1260
aatattccag attaggacct gaggtgtcca tctcgaaaaa ctgcattatc agcggttctg 1320
) tcatagaaaaa agctgttctg cccccatgtt ctgcgtgtt ctcttaagt gtggagataa 1380
atggacactt agaatattca actatggtgtt ttggcatgga agacaacttg aagaacagt 1440
ttaaaaccat atcagatata aagatgcttc agttcttgg agtctgttcc ctgacttgg 1500
tagatatttg gaaccttaaa gctatggaag aactatttc aggaagtaag acgcagctga 1560
gcctgtggac tgctcgaatt ttccctgtct gttttctct gagtgagtcg gttgcagcat 1620
cccttggat gttaaatgcc attcgaaacc attgccatt cagcctgagc aacttcaagc 1680
tgctgtccat ccagggaaatg cttctctgca aagatgttgg agacatgctt gcttacaggg 1740
agcaactctt tctagaaatc agttcaaaga gaaaacagtc tgattcggag aaatcttaaa 1800
) tacaatggat tttgcctgga aacaggatttgg caaatgcagg catattctat agatctctgg 1860
gttcttcttt ctttctcccc tctctccctt cctttccctt tgatgtaatg acaaaggtaa 1920
aaatggccac ttctgtatggaa aaaaaaaaaa aaaaaaaaaa aaaaaa 1965

<210> 52
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 52
caggggtgtt cccttgagga ggtggaa 27

<210> 53
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 53
cactgagcca ggggccacac agcatcc 27
)

<210> 54
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 54
cccctcacgc atgaaggctg gag 23

)<210> 55
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 55
tgccaccgtt tcctccataa gcccagc 27

<210> 56
<211> 28
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 56

atggctcaag ctcccgctaa gtgcccga

28

<210> 57

<211> 27

<212> DNA

<213> Artificial Sequence

)

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 57

tcaaggcgttt gggttggtcc tcatgag

27

<210> 58

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

)

<400> 58

tccggggatg gcgagatggg caagc

25

<210> 59

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 59

cttgacatgg ctctgggctc caag

24

<210> 60

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 60

ccacttcagt cggtcggtag tattt

25

)

<210> 61

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 61

cgttcacccg cctgaggcga catg

24

)

<210> 62

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 62

ggcaggtgct gtcggtgagg tcaccatagt gc

32

<210> 63

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 63
ggggccatgc caaggactat gtcg

<210> 64
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 64
atgtggctga tgttacaaaa tgatg

<210> 65
<211> 1504
<212> DNA
<213> *Cricetulus griseus*

<220>
<221> CDS
<222> (1)..(1119)

```

<400> 65
atg gct cac gct ccc gct agc tgc ccg agc tcc agg aac tct ggg gac 48
Met Ala His Ala Pro Ala Ser Cys Pro Ser Ser Arg Asn Ser Gly Asp
1           5           10          15

```

```

ggc gat aag ggc aag ccc agg aag gtg gcg ctc atc acg ggc atc acc 96
Gly Asp Lys Gly Lys Pro Arg Lys Val Ala Leu Ile Thr Gly Ile Thr
          20           25           30

```

ggc cag gat ggc tca tac ttg gca gaa ttc ctg ctg gag aaa gga tac 144
 Gly Gln Asp Gly Ser Tyr Leu Ala Glu Phe Leu Leu Glu Lys Gly Tyr
 35 40 45

gag gtt cat gga att gta cgg cga tcc agt tca ttt aat aca ggt cga 192
Glu Val His Gly Ile Val Arg Arg Ser Ser Ser Phe Asn Thr Gly Arg

| 50 | 55 | 60 | |
|--|-----|-----|-----|
| att gaa cat tta tat aag aat cca cag gct cat att gaa gga aac atg Ile Glu His Leu Tyr Lys Asn Pro Gln Ala His Ile Glu Gly Asn Met | | | 240 |
| 65 | 70 | 75 | 80 |
| aag ttg cac tat ggt gac ctc acc gac agc acc tgc cta gta aaa atc Lys Leu His Tyr Gly Asp Leu Thr Asp Ser Thr Cys Leu Val Lys Ile | | | 288 |
| 85 | 90 | 95 | 100 |
| atc aat gaa gtc aaa cct aca gag atc tac aat ctt ggt gcc cag agc Ile Asn Glu Val Lys Pro Thr Glu Ile Tyr Asn Leu Gly Ala Gln Ser | | | 336 |
| 105 | | 110 | 115 |
|) cat gtc aag att tcc ttt gac tta gca gag tac act gca gat gtt gat His Val Lys Ile Ser Phe Asp Leu Ala Glu Tyr Thr Ala Asp Val Asp | | | 384 |
| 120 | 125 | | 130 |
| gga gtt ggc acc ttg cgg ctt ctg gat gca att aag act tgt ggc ctt Gly Val Gly Thr Leu Arg Leu Leu Asp Ala Ile Lys Thr Cys Gly Leu | | | 432 |
| 135 | 140 | | 145 |
| ata aat tct gtg aag ttc tac cag gcc tca act agt gaa ctg tat gga Ile Asn Ser Val Lys Phe Tyr Gln Ala Ser Thr Ser Glu Leu Tyr Gly | | | 480 |
| 150 | 155 | | 160 |
|) aaa gtg caa gaa ata ccc cag aaa gag acc acc cct ttc tat cca agg Lys Val Gln Glu Ile Pro Gln Lys Glu Thr Thr Pro Phe Tyr Pro Arg | | | 528 |
| 165 | 170 | 175 | 180 |
| tcg ccc tat gga gca gcc aaa ctt tat gcc tat tgg att gta gtg aac Ser Pro Tyr Gly Ala Ala Lys Leu Tyr Ala Tyr Trp Ile Val Val Asn | | | 576 |
| 185 | 190 | | 195 |
| ttt cga gag gct tat aat ctc ttt gcg gtg aac ggc att ctc ttc aat Phe Arg Glu Ala Tyr Asn Leu Phe Ala Val Asn Gly Ile Leu Phe Asn | | | 624 |
| 200 | 205 | | 210 |
| cat gag agt cct aga aga gga gct aat ttt gtt act cga aaa att agc His Glu Ser Pro Arg Arg Gly Ala Asn Phe Val Thr Arg Lys Ile Ser | | | 672 |
| 215 | 220 | | 225 |
| cgg tca gta gct aag att tac ctt gga caa ctg gaa tgt ttc agt ttg | | | 720 |

| | | | |
|---|-----|-----|------|
| Arg Ser Val Ala Lys Ile Tyr Leu Gly Gln Leu Glu Cys Phe Ser Leu | | | |
| 230 | 235 | 240 | |
| gga aat ctg gac gcc aaa cga gac tgg ggc cat gcc aag gac tat gtc | | | 768 |
| Gly Asn Leu Asp Ala Lys Arg Asp Trp Gly His Ala Lys Asp Tyr Val | | | |
| 245 | 250 | 255 | 260 |
| gag gct atg tgg ctg atg tta caa aat gat gaa cca gag gac ttt gtc | | | 816 |
| Glu Ala Met Trp Leu Met Leu Gln Asn Asp Glu Pro Glu Asp Phe Val | | | |
| 265 | 270 | 275 | |
| ata gct act ggg gaa gtt cat agt gtc cgt gaa ttt gtt gag aaa tca | | | 864 |
| Ile Ala Thr Gly Glu Val His Ser Val Arg Glu Phe Val Glu Lys Ser | | | |
| 280 | 285 | 290 | |
|) | | | |
| tcc atg cac att gga aag acc att gtg tgg gaa gga aag aat gaa aat | | | 912 |
| Phe Met His Ile Gly Lys Thr Ile Val Trp Glu Gly Lys Asn Glu Asn | | | |
| 295 | 300 | 305 | |
| gaa gtg ggc aga tgt aaa gag acc ggc aaa att cat gtg act gtg gat | | | 960 |
| Glu Val Gly Arg Cys Lys Glu Thr Gly Lys Ile His Val Thr Val Asp | | | |
| 310 | 315 | 320 | |
| ctg aaa tac tac cga cca act gaa gtg gac ttc ctg cag gga gac tgc | | | 1008 |
| Leu Lys Tyr Tyr Arg Pro Thr Glu Val Asp Phe Leu Gln Gly Asp Cys | | | |
| 325 | 330 | 335 | 340 |
|) | | | |
| tcc aag gcg cag cag aaa ctg aac tgg aag ccc cgc gtt gcc ttt gac | | | 1056 |
| Ser Lys Ala Gln Gln Lys Leu Asn Trp Lys Pro Arg Val Ala Phe Asp | | | |
| 345 | 350 | 355 | |
| gag ctg gtg agg gag atg gtg caa gcc gat gtg gag ctc atg aga acc | | | 1104 |
| Glu Leu Val Arg Glu Met Val Gln Ala Asp Val Glu Leu Met Arg Thr | | | |
| 360 | 365 | 370 | |
| aac ccc aac gcc tga gcacacctac aaaaaaattc gcgagacatg gactatggtg | | | 1159 |
| Asn Pro Asn Ala | | | |
| 375 | | | |
| cagagccagc caaccagagt ccagccactc ctgagaccat cgaccataaa ccctcgactg | | | 1219 |
| cctgtgttgt ccccacagct aagagctggg ccacagggtt gtggcacca ggacggggac | | | 1279 |
| actccagagc taaggccact tcgctttgt caaaggctcc tctcaatgtat ttggaaat | | | 1339 |
| caagaagttt aaaatcacat actcattta cttgaaatta tgtcactaga caacttaaat | | | 1399 |

ttttgagtct tgagattgtt tttctcttt cttattaaat gatcttcta tgaccaggca 1459
aaaaaaaaaaa aaaaaaggga tataaaaaaa aaaaaaaaaa aaaaa 1504

<210> 66
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 66
atgaagttgc actatggta cctca 25

)

<210> 67
<211> 59
<212> DNA
<213> Cricetulus griseus

<400> 67
ccgacagcac ctgcctagta aaaatcatca atgaagtcaa acctacagag atctacaat 59

)

<210> 68
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 68
gacttagcag agtacactgc agatg 25

<210> 69
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<400> 69

accttggata gaaaggggtg gtctc

25

<210> 70

<211> 125

<212> DNA

<213> Cricetulus griseus

<400> 70

ttgatggagt tggcaccttg cggcttctgg atgcaattaa gacttgtggc cttataaatt 60

ctgtgaagg ttaccaggcc tcaacttagtg aactgtatgg aaaagtgcaa gaaatacccc 120

) agaaa 125

<210> 71

<211> 376

<212> PRT

<213> Cricetulus griseus

<400> 71

Met Ala His Ala Pro Ala Ser Cys Pro Ser Ser Arg Asn Ser Gly Asp

1

5

10

15

Gly Asp Lys Gly Lys Pro Arg Lys Val Ala Leu Ile Thr Gly Ile Thr

20

25

30

) Gly Gln Asp Gly Ser Tyr Leu Ala Glu Phe Leu Leu Glu Lys Gly Tyr

35

40

45

Glu Val His Gly Ile Val Arg Arg Ser Ser Phe Asn Thr Gly Arg

50

55

60

Ile Glu His Leu Tyr Lys Asn Pro Gln Ala His Ile Glu Gly Asn Met

65

70

75

80

Lys Leu His Tyr Gly Asp Leu Thr Asp Ser Thr Cys Leu Val Lys Ile

85

90

95

100

Ile Asn Glu Val Lys Pro Thr Glu Ile Tyr Asn Leu Gly Ala Gln Ser

105

110

115

His Val Lys Ile Ser Phe Asp Leu Ala Glu Tyr Thr Ala Asp Val Asp
120 125 130

Gly Val Gly Thr Leu Arg Leu Leu Asp Ala Ile Lys Thr Cys Gly Leu
135 140 145

Ile Asn Ser Val Lys Phe Tyr Gln Ala Ser Thr Ser Glu Leu Tyr Gly
150 155 160

Lys Val Gln Glu Ile Pro Gln Lys Glu Thr Thr Pro Phe Tyr Pro Arg
165 170 175 180

Ser Pro Tyr Gly Ala Ala Lys Leu Tyr Ala Tyr Trp Ile Val Val Asn
185 190 195)

Phe Arg Glu Ala Tyr Asn Leu Phe Ala Val Asn Gly Ile Leu Phe Asn
200 205 210

His Glu Ser Pro Arg Arg Gly Ala Asn Phe Val Thr Arg Lys Ile Ser
215 220 225

Arg Ser Val Ala Lys Ile Tyr Leu Gly Gln Leu Glu Cys Phe Ser Leu
230 235 240

Gly Asn Leu Asp Ala Lys Arg Asp Trp Gly His Ala Lys Asp Tyr Val
245 250 255 260

Glu Ala Met Trp Leu Met Leu Gln Asn Asp Glu Pro Glu Asp Phe Val
265 270 275)

Ile Ala Thr Gly Glu Val His Ser Val Arg Glu Phe Val Glu Lys Ser
280 285 290

Phe Met His Ile Gly Lys Thr Ile Val Trp Glu Gly Lys Asn Glu Asn
295 300 305

Glu Val Gly Arg Cys Lys Glu Thr Gly Lys Ile His Val Thr Val Asp
310 315 320

Leu Lys Tyr Tyr Arg Pro Thr Glu Val Asp Phe Leu Gln Gly Asp Cys
325 330 335 340

Ser Lys Ala Gln Gln Lys Leu Asn Trp Lys Pro Arg Val Ala Phe Asp
345 350 355

Glu Leu Val Arg Glu Met Val Gln Ala Asp Val Glu Leu Met Arg Thr
360 365 370

Asn Pro Asn Ala
375

<210> 72
<211> 321
<212> PRT
<213> Cricetulus griseus

)
<400> 72
Met Gly Glu Pro Gln Gly Ser Arg Arg Ile Leu Val Thr Gly Ser
1 5 10 15

Gly Leu Val Gly Arg Ala Ile Gln Lys Val Val Ala Asp Gly Ala Gly
20 25 30

Leu Pro Gly Glu Glu Trp Val Phe Val Ser Ser Lys Asp Ala Asp Leu
35 40 45

Thr Asp Ala Ala Gln Thr Gln Ala Leu Phe Gln Lys Val Gln Pro Thr
50 55 60

) His Val Ile His Leu Ala Ala Met Val Gly Gly Leu Phe Arg Asn Ile
65 70 75 80

Lys Tyr Asn Leu Asp Phe Trp Arg Lys Asn Val His Ile Asn Asp Asn
85 90 95

Val Leu His Ser Ala Phe Glu Val Gly Thr Arg Lys Val Val Ser Cys
100 105 110

Leu Ser Thr Cys Ile Phe Pro Asp Lys Thr Thr Tyr Pro Ile Asp Glu
115 120 125

Thr Met Ile His Asn Gly Pro Pro His Ser Ser Asn Phe Gly Tyr Ser
130 135 140

Tyr Ala Lys Arg Met Ile Asp Val Gln Asn Arg Ala Tyr Phe Gln Gln
145 150 155 160

His Gly Cys Thr Phe Thr Ala Val Ile Pro Thr Asn Val Phe Gly Pro
165 170 175

His Asp Asn Phe Asn Ile Glu Asp Gly His Val Leu Pro Gly Leu Ile
180 185 190

His Lys Val His Leu Ala Lys Ser Asn Gly Ser Ala Leu Thr Val Trp
195 200 205

Gly Thr Gly Lys Pro Arg Arg Gln Phe Ile Tyr Ser Leu Asp Leu Ala
210 215 220

) Arg Leu Phe Ile Trp Val Leu Arg Glu Tyr Asn Glu Val Glu Pro Ile
225 230 235 240

Ile Leu Ser Val Gly Glu Glu Asp Glu Val Ser Ile Lys Glu Ala Ala
245 250 255

Glu Ala Val Val Glu Ala Met Asp Phe Cys Gly Glu Val Thr Phe Asp
260 265 270

Ser Thr Lys Ser Asp Gly Gln Tyr Lys Thr Ala Ser Asn Gly Lys
275 280 285

Leu Arg Ala Tyr Leu Pro Asp Phe Arg Phe Thr Pro Phe Lys Gln Ala
290 295 300

) Val Lys Glu Thr Cys Ala Trp Phe Thr Asp Asn Tyr Glu Gln Ala Arg
305 310 315 320

Lys

<210> 73

<211> 590

<212> PRT

<213> Cricetulus griseus

<400> 73

Met Ala Ser Leu Arg Glu Ala Ser Leu Arg Lys Leu Arg Arg Phe Ser

1

5

10

15

Glu Met Arg Gly Lys Pro Val Ala Thr Gly Lys Phe Trp Asp Val Val
20 25 30

Val Ile Thr Ala Ala Asp Glu Lys Gln Glu Leu Ala Tyr Lys Gln Gln
35 40 45

Leu Ser Glu Lys Leu Lys Arg Lys Glu Leu Pro Leu Gly Val Asn Tyr
50 55 60

His Val Phe Thr Asp Pro Pro Gly Thr Lys Ile Gly Asn Gly Gly Ser
65 70 75 80

) Thr Leu Cys Ser Leu Gln Cys Leu Glu Ser Leu Tyr Gly Asp Lys Trp
85 90 95

Asn Ser Phe Thr Val Leu Leu Ile His Ser Gly Gly Tyr Ser Gln Arg
100 105 110

Leu Pro Asn Ala Ser Ala Leu Gly Lys Ile Phe Thr Ala Leu Pro Leu
115 120 125

Gly Glu Pro Ile Tyr Gln Met Leu Asp Leu Lys Leu Ala Met Tyr Met
130 135 140

Asp Phe Pro Ser Arg Met Lys Pro Gly Val Leu Val Thr Cys Ala Asp
145 150 155 160

) Asp Ile Glu Leu Tyr Ser Ile Gly Asp Ser Glu Ser Ile Ala Phe Glu
165 170 175

Gln Pro Gly Phe Thr Ala Leu Ala His Pro Ser Ser Leu Ala Val Gly
180 185 190

Thr Thr His Gly Val Phe Val Leu Asp Ser Ala Gly Ser Leu Gln His
195 200 205

Gly Asp Leu Glu Tyr Arg Gln Cys His Arg Phe Leu His Lys Pro Ser
210 215 220

Ile Glu Asn Met His His Phe Asn Ala Val His Arg Leu Gly Ser Phe
225 230 235 240

Gly Gln Gln Asp Leu Ser Gly Gly Asp Thr Thr Cys His Pro Leu His
245 250 255

Ser Glu Tyr Val Tyr Thr Asp Ser Leu Phe Tyr Met Asp His Lys Ser
260 265 270

Ala Lys Lys Leu Leu Asp Phe Tyr Glu Ser Val Gly Pro Leu Asn Cys
275 280 285

Glu Ile Asp Ala Tyr Gly Asp Phe Leu Gln Ala Leu Gly Pro Gly Ala
290 295 300

) Thr Ala Glu Tyr Thr Lys Asn Thr Ser His Val Thr Lys Glu Glu Ser
305 310 320

His Leu Leu Asp Met Arg Gln Lys Ile Phe His Leu Leu Lys Gly Thr
325 330 335

Pro Leu Asn Val Val Leu Asn Asn Ser Arg Phe Tyr His Ile Gly
340 345 350

Thr Thr Glu Glu Tyr Leu Leu His Phe Thr Ser Asn Gly Ser Leu Gln
355 360 365

Ala Glu Leu Gly Leu Gln Ser Ile Ala Phe Ser Val Phe Pro Asn Val
370 375 380

) Pro Glu Asp Ser His Glu Lys Pro Cys Val Ile His Ser Ile Leu Asn
385 390 395 400

Ser Gly Cys Cys Val Ala Pro Gly Ser Val Val Glu Tyr Ser Arg Leu
405 410 415

Gly Pro Glu Val Ser Ile Ser Glu Asn Cys Ile Ile Ser Gly Ser Val
420 425 430

Ile Glu Lys Ala Val Leu Pro Pro Cys Ser Phe Val Cys Ser Leu Ser
435 440 445

Val Glu Ile Asn Gly His Leu Glu Tyr Ser Thr Met Val Phe Gly Met
450 455 460

Glu Asp Asn Leu Lys Asn Ser Val Lys Thr Ile Ser Asp Ile Lys Met
465 470 475 480

Leu Gln Phe Phe Gly Val Cys Phe Leu Thr Cys Leu Asp Ile Trp Asn
485 490 495

Leu Lys Ala Met Glu Glu Leu Phe Ser Gly Ser Lys Thr Gln Leu Ser
500 505 510

Leu Trp Thr Ala Arg Ile Phe Pro Val Cys Ser Ser Leu Ser Glu Ser
515 520 525

Val Ala Ala Ser Leu Gly Met Leu Asn Ala Ile Arg Asn His Ser Pro
530 535 540

)
Phe Ser Leu Ser Asn Phe Lys Leu Leu Ser Ile Gln Glu Met Leu Leu
545 550 555 560

Cys Lys Asp Val Gly Asp Met Leu Ala Tyr Arg Glu Gln Leu Phe Leu
565 570 575

Glu Ile Ser Ser Lys Arg Lys Gln Ser Asp Ser Glu Lys Ser
580 585 590

)